BP893 & BP893-TH

audio-technica

MicroEarset Omnidirectional Condenser Headworn Microphones

broadcast & production microphones

Features

- **Outstanding clarity and intelligibility**
- **Lightweight, ergonomic design**
- **Extremely unobtrusive, 1-inch flexible boom**
- **Secure over-the-ear placement**
- **Extended frequency response for natural vocal reproduction**
- **Locking 4-pin microphone output connector compatible with included power module and all Audio-Technica UniPak® body-pack wireless transmitters**
- **UniSteep® filter provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality**
- **Offered in black and beige (-TH) models**
- **Also available in wireless models (without power module) terminated for use with all Audio-Technica UniPak® wireless systems and many other manufacturers' wireless systems**

BP893 Description

The BP893 is a headworn condenser microphone with an omnidirectional polar pattern. It is designed to provide clear, natural vocal pickup in theatrical performances, houses of worship and broadcast studios.

The microphone requires 11V to 52V phantom power for operation.

The microphone includes a 1.4 m (55") permanently attached miniature cable. Its free end connects to the provided AT8539 power module via a locking 4-pin connector. The connector is also compatible with all Audio-Technica UniPak® body-pack transmitters. The output of the power module is a 3-pin XLRM-type connector.

The BP893 MicroEarset is positioned unobtrusively over the ear. Its omnidirectional miniature condenser capsule offers outstanding pickup tailored for natural vocal reproduction, with audio reproduction similar to that of a high-quality lavalier microphone. The microphone is also ideal for use in violin pickup; wear the BP893 over the ear as usual, with no need for clamps on the violin.

A recessed switch in the power module permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass UniSteep® filter) to help control undesired ambient noise.

The microphone comes equipped with a power module, a cable clip, two windscreens, two element covers, a moisture guard, a belt clip and a protective carrying case. The microphone is available in black and beige.

Wireless Description

The microphone is also available in a variety of wireless models, including the BP893cW. The BP893cW includes a 1.4 m (55") permanently attached miniature cable terminated with a locking 4-pin connector for use with Audio-Technica UniPak® body-pack transmitters. Models are also available in a variety of terminations for use with many other manufacturers' wireless systems (see below). No power module or belt clip is included (or required) with the wireless models. The wireless models' dimensions, polar pattern and included accessories are otherwise identical to those of the BP893.

The BP893cW is also available unterminated as the BP893c.

Cable Terminations

BP893cW, BP893cW-TH – Terminated with locking 4-pin connector for use with A-T UniPak® body-pack transmitters

BP893cL4, BP893cL4-TH – Terminated for Sennheiser® wireless systems using Lemo® connector

BP893cLM3, BP893cLM3-TH – Terminated for Sennheiser® wireless systems using locking 3.5 mm connector

BP893cT4, BP893cT4-TH – Terminated for Shure® wireless systems using TA4F-type connector

BP893cT5, BP893cT5-TH – Terminated for Lectrosonics® wireless systems using TA5F-type connector

BP893c, BP893c-TH – Unterminated

Model numbers ending in "TH" are beige.

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Operation and Maintenance

The BP893 requires 11V to 52V phantom power for operation.

Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot"—positive acoustic pressure produces positive voltage at Pin 2.

An integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations. To engage the UniSteep® filter, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the "bent" line.

The BP893 can be worn on either the left or right ear. Position the ear loop around the back of your ear, so that the boom extends from the top of your ear, and adjust the boom as needed to follow the contour of your face.

A cable clip is provided for strain relief, allowing the microphone to remain securely in place without the weight of the cable pulling on the headset. To install the cable clip, slip the cable into the snap-on connector and attach the clip to clothing, leaving enough slack on the MicroEarset side of the clip to allow for free, comfortable motion.

The donut-shaped moisture guard is provided to protect the element from sweat and moisture. Position the moisture guard as close to the element as possible to provide maximum protection. To remove the moisture guard, first remove the element cover and place it out of harm's way. Gently slide the moisture guard over the element. Replace the element cover.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for extended periods. Extremely high humidity should also be avoided.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for headworn use. It shall have an omnidirectional polar pattern and a frequency response of 20 Hz to 20,000 Hz. The microphone shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 114 dB with a dynamic range of 88 dB. Nominal open-circuit output voltage shall be 19.9 mV at 1V, 1 Pascal. Output shall be low impedance balanced (245 ohms).

The microphone shall have a 1.4 m (55") permanently attached miniature cable terminating in a locking 4-pin output connector. The output connector shall connect to a jack on the included power module. The output connector shall also connect to any Audio-Technica UniPak® body-pack wireless transmitter. The power module shall contain a recessed switch to permit choice of flat response or 80 Hz low-frequency roll-off. The output of the power module shall be a 3-pin XLRM-type connector.

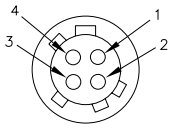
The microphone shall be an over-the-ear headworn design with a diameter of 2.6 mm (0.10"). Microphone, boom and earpiece weight shall be 2.0 grams (0.07 oz). The microphone shall include a power module, a cable clip, two windscreens, two element covers, a moisture guard, a belt clip and a carrying case. Finish shall be low-reflectance black [beige].

Wireless models of the microphone shall also be available, terminated for use with Audio-Technica UniPak® body-pack transmitters and a variety of other manufacturers' wireless systems. The wireless models' dimensions, polar pattern and included accessories (excluding power module and belt clip) shall be identical to those of the wired model. The microphone shall also be available unterminated.

The Audio-Technica BP893 [BP893-TH] is specified.

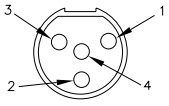
The Audio-Technica BP893cW [BP893cW-TH]; BP893cL4 [BP893cL4-TH]; BP893cLM3 [BP893cLM3-TH]; BP893cT4 [BP893cT4-TH]; BP893cT5 [BP893cT5-TH] (wireless version) is specified.

The Audio-Technica BP893c [BP893c-TH] (unterminated) is specified.



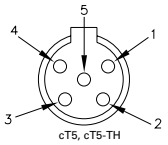
BP893, cW, cW-TH

	Function	Wire Color
Pin 1	Ground/Shield	Green
Pin 2	Instrument	Jumper to Pin 1
Pin 3	Mic Audio	Copper Color
Pin 4	Bias + In	Red



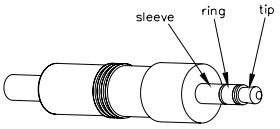
cT4, cT4-TH

	Function	Wire Color
Pin 1	Ground/Shield	Green
Pin 2	Bias + In	Red
Pin 3	Mic Audio	Copper Color
Pin 4	Source Load	Jumper to Pin 3



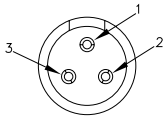
cT5, cT5-TH

	Function	Wire Color
Pin 1	Ground/Shield	Green
Pin 2	Bias + In	Red
Pin 3	Mic Audio	Copper Color
Pin 4	Source Load	Jumper to Pin 1
Pin 5	Line In	Open



cLM3, cLM3-TH

	Function	Wire Color
Sleeve	Ground/Shield	Green
Ring	Mic Audio	Copper Color
Tip	Bias + In	Red



cL4, cL4-TH

	Function	Wire Color
Pin 1	N/C	Open
Pin 2	N/C	Open
Pin 3	Bias + In, Mic Audio	Red
Shell/Case	Ground/Shield	Green

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Omnidirectional
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave (wired only)
Open circuit sensitivity	–34 dB (19.9 mV) re 1V at 1 Pa
Impedance	245 ohms (wired only)
Maximum input sound level	114 dB SPL, 1 kHz at 3% T.H.D.
Dynamic range (typical)	88 dB, 1 kHz at Max SPL (wired only)
Signal-to-noise ratio[1]	68 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical (wired only)
Current consumption	0.1 mA typical at 5V (wireless only)
Voltage range	2.5-11V (wireless only)
Switch	Flat, roll-off (wired only)
Weight	Microphone, boom & earpiece: 2.0 g (0.07 oz) Power module (wired only): 85 g (3.0 oz)
Dimensions	Microphone: 8.1 mm (0.32") long, 2.6 mm (0.10") diameter Boom: 26.4 mm (1.04") long, 1.07 mm (0.04") diameter Power module (wired only): 97.6 mm (3.84") long, 18.9 mm (0.74") diameter
Output connector (power module)	Integral 3-pin XLRM-type
Cable	1.4 m (55") long (permanently attached to microphone), 1.6 mm (0.06") diameter, 2-conductor shielded cable with locking 4-pin connector (wired and cW versions)
Audio-Technica case style	M31
Accessories furnished	AT8539 power module (wired only); AT8440 cable clip; two AT8157 windscreens; two AT8156 element covers; moisture guard; belt clip (wired only); carrying case

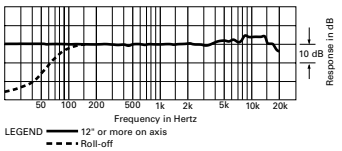
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL

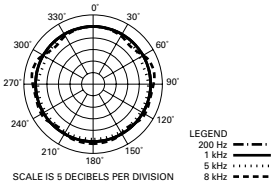
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 20–20,000 Hz



polar pattern



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Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224
Audio-Technica Limited, Old Lane, Leeds LS11 8AG England
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